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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/214,865	01/14/1999	YOSHIHIKO TAKISHITA	Q52837	8105
65565	7590	07/27/2007		
SUGHRUE-265550			EXAMINER	
2100 PENNSYLVANIA AVE. NW			GUTIERREZ, ANTHONY	
WASHINGTON, DC 20037-3213				
			ART UNIT	PAPER NUMBER
			2857	
			MAIL DATE	DELIVERY MODE
			07/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/214,865

Applicant(s)

TAKISHITA, YOSHIHIKO

Examiner

Anthony Gutierrez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-15 and 46-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-15 and 46-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 7, 9-15, and 50-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (United States Patent 5,715,823) in view of Kanda et al (United States Patent 5,348,013).

As to claims 1, 11, 14, Wood et al. discloses an ultrasonic inspection system management system (Figs. 1, 15-17) comprising: multiple ultrasonic inspection systems (HDI 1000) each including a probe (12) and a system main body (10), a host computer (centralized server), a transmission line for connecting said multiple ultrasonic inspection systems and said host computer (through HUB), and a data storage section, characterized in that said host computer comprises data collection means for collecting data provided by said multiple ultrasonic inspection systems via said transmission line and storing the data in said data storage section; wherein the data provided by said multiple ultrasonic inspection systems is stored in the single data storage section wherein the data is specimen inspection data (col. 13, lines 32-37).

Wood et al. does not specifically disclose that the host computer further includes a determination means for analyzing the specimen inspection data and determining

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whether or not a specimen contains a defect wherein the data is reception level data and wherein said host computer further includes a reception level comparison means for comparing most recent data of the reception level data or an average of continuous reception level data pieces containing the most recent data with a predetermined reception level setup value.

Kanda et al. however, teaches these features as Kanda et al. discloses a computer used in correcting ultrasonic diagnostic images (see Abstract) that includes a determination means for analyzing the specimen inspection data and determining whether or not a specimen contains a defect wherein the data is reception level data (col. 22, lines 32-45) and wherein said computer further includes a reception level comparison means for comparing most recent data of the reception level data or an average of continuous reception level data pieces containing the most recent data with a predetermined reception level setup value (col. 8, line 61-col. 9, line 12).

It therefore would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the image storage of Kanda et al., into the ultrasonic diagnostic imaging system of Wood et al., in order to validly correct the phase distortion of the ultrasonic pulses in the ultrasonic images to produce a higher quality image than would otherwise be stored in the server or Wood et al., thus providing greater access to higher quality ultrasonic images.

As to claim 3, Wood et al. and Kanda et al. disclose everything claimed as applied above (see claim 1). In addition, Wood et al. discloses the inspection system determination means (the graphical links of col. 12, lines 45-62).

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As to claims 4, 5, and 7, Wood et al. and Kanda et al. disclose everything claimed as applied above (see claim 1). In addition, Wood et al. discloses that the data is first test data provided when said probe of a specific one of said ultrasonic inspection systems is connected to said system main body and second test data provided when said probe is disconnected from said system main body (col. 12, lines 16-29) and wherein said host computer further includes command signal output means for outputting command signals for obtaining the first test data and the second test data and abnormal point determination means for determining whether or not said probe in said specific ultrasonic inspection system is abnormal based on the first test data and the second test data (col. 12, lines 8-16). It is implied that the probe is connected to and disconnected from said system main body by a switch device turned on and off as instructed by said host computer where it the reference teaches that the functions of the system are carried out in a normal manner through a multi-tasking operating system that allows an operator control over a network through the server.

As to claims 9, 10, 12, 13, and 15, Wood et al. and Kanda et al. disclose everything claimed as applied above (see claim 1). In addition, Kanda et al. discloses the data is reception level data and wherein said host computer further includes reception level comparison means for comparing most recent data of the reception level data of an average of continuous reception level data pieces containing the most recent data with a predetermined reception level setup value and change comparison means for comparing a difference or a change ratio between the most recent data and its immediately preceding reception level data with a predetermined change setup value when said reception level comparison means determines that the

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most recent data or the average is greater than the reception level setup value (col. 8, lines 3-60).

As to claims 50-54, Wood et al. and Kanda et al. disclose everything claimed as applied above (see claim 1). In addition, Wood et al. discloses that each of said ultrasonic inspection systems has an ultrasonic probe data management function for transmitting and receiving ultrasonics with one selected from ultrasonic probes and inspecting a specimen based on a received ultrasonic signal, characterized in that each of said ultrasonic probes is provided with its own storage device for storing general characteristic data of said ultrasonic probe including a display device (24 (a and b), 26, and 30).

3. Claims 6, and 46-49, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (United States Patent 5,715,823) in view of Kanda et al (United States Patent 5,348,013), further in view of Lather et al. (United States Patent 4,240,281).

Wood et al. discloses everything claimed as applied above (see claim 1). In addition, Wood et al. discloses that each of said system main bodies (Fig.1, element 10) comprises an ultrasonic transmission/reception circuit for exciting said probe and receiving a signal therefrom (14), a waveform processing circuit for processing a signal from said ultrasonic transmission/reception circuit (16), and a control section for controlling operation of said ultrasonic transmission/reception circuit and said waveform processing circuit (20).

Wood et al. teaches use of the probe and system by using EMT or medical corpsman to hold and manipulate the probe (col. 11, lines 50-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate into the combination of Wood et al. and Kanda et al., positioning means for making said probe opposed to a test object with said probe connected to said ultrasonic transmission/reception circuit into the system main body since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. In re Venner, 120 USPQ 192.

With this understanding the combination of Wood et al. and Kanda et al. discloses a probe excitation means for exciting said probe with said probe opposed to the test object (14), first data collection means for collecting at least one of data output from said ultrasonic transmission/reception circuit and data output from said waveform processing circuit when said probe is excited by said probe excitation means (24),

The combination of Wood et al. and Kanda et al. does not specifically teach test signal output means for feeding a test signal into said ultrasonic transmission/reception circuit with said probe disconnected from said ultrasonic transmission/reception circuit, second data collection means for collecting at least one of data output from said ultrasonic transmission/reception circuit and data output from said waveform processing circuit when a test signal is output by said test signal output means, and determination means for determining whether or not said probe in said ultrasonic inspection system is abnormal based on the output data collected by said first data collection means and said second data collection means.

This, however, is taught by Lather et al.. Lather et al teaches an automatic self-checking of test equipment consisting of a probe comprising a T/R circuit (fig. 1, part 4), waveform-processing circuit (fig. 1, part 6), data storage for storing probe data (fig. 4, parts 6 and 19), and control section (fig. 1, part 8). Lather et al teaches opposing the probe to a test object (fig. 1, part 1), collecting data from the T/R circuit when probe is excited (col. 2, lines 5-10), disconnecting the probe from the T/R circuit and collecting a second data (col. 1, lines 58+), and determining whether the probe is abnormal based on the tests (col. 2, lines 25-34).

Since Wood et al., Kanda et al., and Lather et al. are all within the art of operating ultrasonic data-collecting equipment, and because Lather et al teaches the benefits of an ultrasonic probe self-test, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the combination of Wood et al. and Kanda et al. so that the inspection system includes a probe self-test means, as taught by Lather et al, so as to receive the benefits of saving system down-time and improving data accuracy.

#### **Response to Arguments**

4. Applicant's arguments with respect to claims 1, 3-7,9-20,26-30 and 39-54 have been considered but are moot in view of the new ground(s) of rejection.



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**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gutierrez whose telephone number is (571) 272-2215. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AG 7/6/07  
Anthony Gutierrez

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7/6/07

 7/27/07  
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SUPERVISORY PATENT EXAMINER